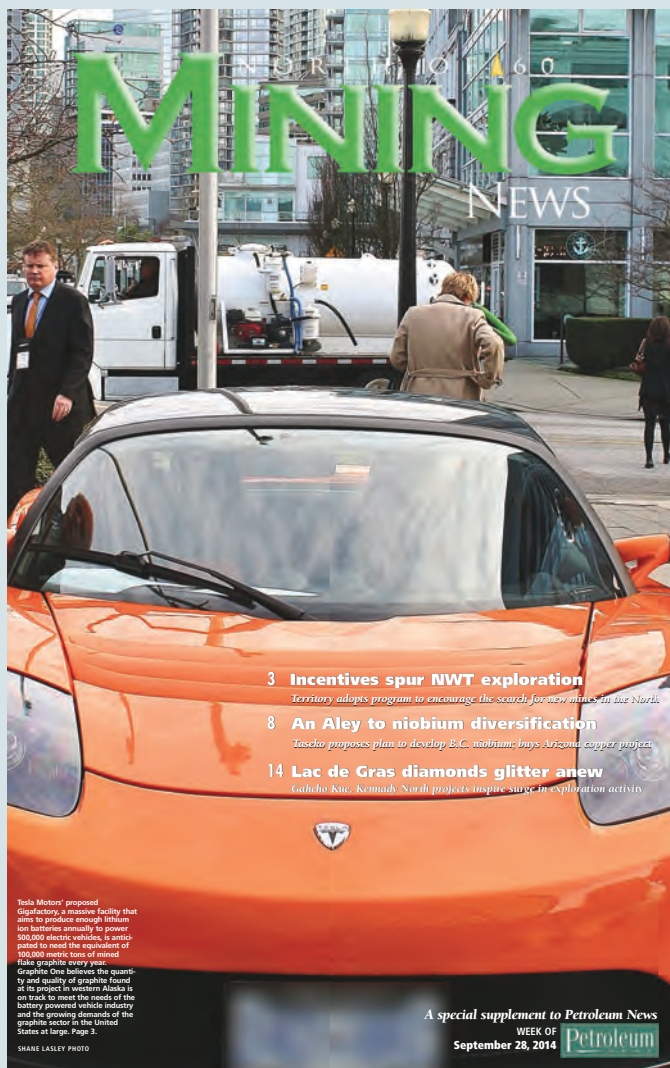




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- 14 Lac de Gras diamonds glitter anew  
*Gabcho Kuo, Kenady, South projects inspire surge in exploration activity.*

Tesla Motors' proposed Gigafactory, a massive facility that aims to produce enough lithium-ion batteries annually to power 500,000 electric vehicles, is anticipated to need the equivalent of 100,000 metric tons of mined flake graphite every year. Graphite One believes the quantity and quality of graphite found at its project in western Alaska is on track to meet the needs of the battery-powered vehicle industry and the growing demands of the graphite sector in the United States at large. Page 3.

A special supplement to Petroleum News  
WEEK OF  
September 28, 2014

The September issue of North of 60 Mining News is enclosed.

## HEA general manager says utility left ARCTEC because of lobbying

In a Sept. 15 letter to state Rep. Doug Isaacson, Brad Janorschke, general manager of Homer Electric Association, said that his utility had quit the Alaska Railbelt Cooperative and Electric Co., or ARCTEC, in early 2013 because, rather than pursuing cost-saving projects that would jointly benefit ARCTEC's member utilities, ARCTEC's sole purpose seemed to have become lobbying for grant funding from the state Legislature. A desire of some ARCTEC members to hire a CEO for the organization had also factored into Homer Electric's decision, Janorschke said.

Five of the six Alaska Railbelt electricity utilities formed ARCTEC in early 2011, as a means of collectively addressing the management and upgrading of the Railbelt power grid.

see **ARCTEC MEMBERSHIP** page 15

## Top officers at Miller earn big as company logs operating loss

Miller Energy Resources Inc. is losing a lot of money. But its senior officers are nevertheless pocketing a lot.

The company's newly appointed chief executive, Carl F. Giesler, will receive an annual salary of \$800,000, according to a Sept. 18 filing with the U.S. Securities and Exchange Commission.

Giesler, 42, replaced Scott M. Boruff as CEO. Boruff resigned on Sept. 14 and then was appointed as "executive chairman of the board."

The company "will pay to Mr. Boruff an annual base salary of not less than \$795,000," the SEC filing said. Boruff also will

see **INSIDER** page 15



### EXPLORATION & PRODUCTION

# A little slippage

Rework timeframe for Chukchi Sea lease sale SEIS moves back a few weeks

By **ALAN BAILEY**  
Petroleum News

In a status report filed with the federal District Court in Alaska on Sept. 22 the Bureau of Ocean Energy Management said that it now anticipates publishing a draft of its revised version of the supplementary environmental impact statement, or SEIS, for the 2008 Chukchi Sea oil and gas lease sale in late October for public review. Following a 45-day public comment period and subsequent revisions to the document, the new schedule would lead to the issue of the final SEIS in late February, with a new record of decision for the lease sale coming 30 days later.

In July the bureau had said that it anticipated publishing the draft SEIS in early October, with

*The timing with which BOEM issues a new SEIS and lease sale decision is particularly critical for Shell, the company spearheading efforts to explore in the Chukchi Sea.*

the final SEIS anticipated in early February and the record of decision expected in early March. The new status report says that BOEM continues to commit maximum resources to the SEIS rewrite, including the authorization of additional work hours and overtime.

The District Court ordered a rework of the lease sale environmental impact statement following a

see **CHUKCHI SALE** page 16

### EXPLORATION & PRODUCTION

# Consolidations planned

Hilcorp wants to increase efficiencies at two Granite Point fields, Kasilof unit

By **ERIC LIDJI**  
For Petroleum News

Hilcorp Alaska LLC is considering two consolidations among its Cook Inlet properties.

The Houston-based independent wants to combine the Granite Point field and South Granite Point unit to reduce redundancies and is considering whether it should use the facilities at its Kasilof unit to support operations at a more productive field nearby.

Granite Point and South Granite Point are neighboring offshore fields on the west side of Cook Inlet. After acquiring the fields in 2011, through its acquisition of Union Oil Company of

*Given the declining production and lack of foreseeable opportunities for development at Kasilof, Hilcorp told the state that it might use the Kasilof facilities to assist another asset, probably the nearby Ninilchik unit.*

California assets, Hilcorp began working over wells using the Anna and Bruce platform at Granite Point and the Granite Point platform at South Granite Point.

Earlier this year, Hilcorp told the state it would

see **HILCORP MOVES** page 16

### NATURAL GAS

# Spotlight on taxes, jobs

Backers of 4 largest British Columbia LNG projects tell legislators what's needed

By **GARY PARK**  
For Petroleum News

Taxes and jobs are rated as needing urgent attention if LNG proponents in British Columbia decide within the next couple of years to go ahead with their plans.

An industry alliance representing backers of the four largest projects and a government-appointed jobs training agency have hammered home their concerns, even though it is far from certain that any of the LNG ventures will get corporate sanctioning.

A newly establish British Columbia LNG Developers Alliance has made its case to the House of Commons Standing Committee on Finance that it

*The alliance's four members are Chevron-operated Kitimat LNG, Pacific NorthWest LNG operated by Malaysia's Petronas, Shell Canada's LNG Canada venture and Prince Rupert LNG led by the United Kingdom's BG Group.*

wants LNG liquefaction plants and terminals treated as manufacturing operations to qualify for tax concessions.

The alliance said it is in Canada's interest to facilitate LNG projects to open the path for exporting

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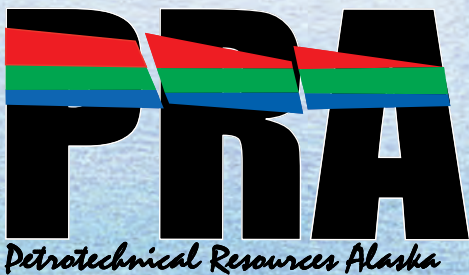
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## GOVERNMENT

# Joule cites importance of local voice

Northwest Arctic Borough major says he spoke for communities in Juneau, now works to have local representation internationally

By STEVE QUINN

For Petroleum News

Reggie Joule spent 15 years representing the Northwest Arctic Borough and the North Slope Borough as member of the state's House of Representatives.

Today, he's Northwest Arctic Borough mayor and member of the state's Arctic Policy Commission, a group Joule identifies as crucial as the state prepares for the U.S. becoming chair to the Arctic Council next year.

Joule talked to Petroleum News about going from a state representative to mayor and what it means for Alaska to have a role in developing Arctic policy, either for research or resource development.

*Petroleum News: As a member of the House, you represented a voice for the indigenous people. Has that changed as borough mayor?*

Joule: It's different in a lot of ways. I'm busier by 10 fold, and I was busy as a legislator. There's a lot of learning on my part on being an administrator, the executive person, being in a position where the buck stops here. In that way, it's been different. In terms of giving people a voice, yeah, you can do something on the legislative end, representing a district. When I was representing House District 40 like I was all those years, that included representing places like Shishmaref as part of my district and all the issues they faced (erosion and possible town relocation) and also the North Slope Borough and issues important to them, as well as my home community and home region of the Northwest Arctic. And so coming into this job as mayor of a borough gives me the opportunity to network with the North Slope and the Bering Straits but also be able to focus the discussion more honed into this area.

*Petroleum News: So are you still meeting with the same people either in Juneau or Washington but in a different capacity?*

Joule: Yeah, to some degree that's true, but it's also getting exposure to different venues that I had not had the opportunity to do. Then also getting the opportunity to work with our communities in a different way. So raising issues with the Assembly, letting them know some of the things we are doing. In the event that we have international travel, or other travel in Alaska, making sure we try to include the Assembly, or at least a representative in the Assembly, to be present in those discussions so they have a flavor of what the administration is engaging in with those discussions. While I didn't have the opportunity to do that in the Legislature, I do have that opportunity here. That is good for our Assembly to be exposed to the range of interests in the Arctic at a global level.

*Petroleum News: Speaking to the international communities, where has your work taken you so far?*

Joule: We did go to Iceland for the first Arctic Circle forum, held a year ago October. It had a lot of international flavor, with Arctic Council nations and countries interested in the Arctic like Singapore, South Korea, China and some of the European Union nations. A lot of that was people who were either applying for or had been granted observer status with the Arctic Council. Just meeting and hearing that even a tiny little country like

Singapore has an Arctic strategy interested me. China has got an Arctic strategy. Countries that span the globe in a lot of ways have this desire to get involved in future development of the Arctic from the perspective of economics. It was really an eye-opener to be able to experience that level of interest because it allowed me to get a little more of a wide-angle view of the interest. You can hear these things from word of mouth and you can read about it, but when you hear directly from these folks about their interests and what's driving it, that's really an eye-opener for me. That was in Iceland but we also went over to Belgium for a conference on things like Arctic shipping and to observe the relationship of business and government, and the various industries. It's a little bit different relationship than we have here in Alaska and even the rest of the country to some degree. It didn't seem as polarized as we tend to make it here in Alaska.

*Petroleum News: So with that in mind, what were your biggest takeaways from your international travel?*

Joule: I think the thing that really kind of hit home is that so much of these things, while we can have influence on some of the process, overall there is little that we can control. Take the Bering Straits from the concept of an international waterway. Yeah, it may be U.S. waters and it may be Russian waters, but this is an international marine lane. From that perspective, the commerce that can happen there and what's going to drive it is going to be market driven. Is it going to be fish from Norway or is it going to be goods from China? While a lot of it is going to be determined, there is a lot that we do not control. One of the things it made me think about is if there is a lot that we do not control, what are the things that we do? How do we prepare to adapt in this new focus and new time where at one point Arctic



REGGIE JOULE

development and the opening of the Arctic was some time off? Well, that time is here. We are seeing year-by-year the increases of ships and marine traffic.

It just makes you think differently. Some of this depends on who needs what where in this world. We are just a high-way, a way to get past by. On the other end of it, there will be infrastructure needs that I think Russia and the United States, as the bordering countries, are going to have to begin to build up. Russia is well on its way. The United State is just waking up to it. There are investors out there, who want to know how they can invest their money to get a return, and they want to know is there a role for us to play in some that?

*Petroleum News: You talk about infrastructure. Would that be a priority for you as it seems to be for others, getting various pieces of infrastructure in place ahead of development that may or may not be ours?*

Joule: I think we have to be aware of some of that. We have to be engaged in those discussions. The city of Kotzebue for some time has taken the lead with the support of NANA regional corporation and the borough, for some sort of marine landing, whether it's called a port or a harbor. Are there transportation things that we need to do and what are the industries that want to come up? On one side, we've got Gov. Parnell's Roads to Resources led by

AIDEA for the potential of mining and how we engage in the EIS. That's a necessity that needs to occur while making sure the residents impacted are informed.

As we look at the results, we can determine whether or not we want to be supportive of it or not. Using that kind of information to see and get to what's in it for us. What are the job prospects? Will it reduce our cost of living? Will there be cheaper energy? What's going to be the access in and out if there are roads? Or is it going to be limited because it's an industry road? How do we develop our people with all of this infrastructure, whether it's

## QA AND

ground transportation, port authorities, interties? All of it. How do we prepare for all of this? How do we prepare with the Coast Guard with search and rescue.

What do we need to be ready for in the event of spill response — because right now we are naked in terms the ability to be of any help to anybody. And whose responsibility is it to do what? All of that in dealing with our communities challenged with erosion and whether or not they may need to move for their safety. There are a lot of things our borough and our region are generally engaged in those conversations.

*Petroleum News: Let's talk about spill*

see JOULE Q&A page 13

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## FINANCE & ECONOMY

### Cenovus keeps rolling along

Oil sands major Cenovus Energy has started production at an expansion of its trail-blazing Foster Creek thermal recovery operation in northeastern Alberta's Cold Lake region. The addition, labeled Phase E, is targeting 5,000 barrels per day by the end of 2014, building to 30,000 bpd over the next 12 to 18 months, the company said, adding it expects two additional phases will be completed in 2015 and 2016, each designed to yield 30,000 bpd.

A Cenovus spokesman said the company believes very strongly in the economics of Foster Creek, which uses steam-assisted gravity drainage technology, confident it can achieve long-term returns of greater than 20 percent a year.

He said Cenovus has access to an "incredible" resource and is making steady gains in the use of SAGD, which involves the injection of steam to melt bitumen deposits and enable them to flow to the surface.

The spokesman said SAGD is a benefit to the environment by reducing the use of water and natural gas in the extraction process, while also shrinking the surface footprint compared with open pit bitumen mining.

Foster Creek is the first commercial SAGD project in Canada, starting commercial output in 2001 and is the largest of its kind in the oil sands, with ConocoPhillips holding a 50 percent stake. Cenovus expects its next three phases can be completed at capital costs of C\$35,000-C\$38,000 per incremental barrel of production, which the company insists is better than the industry average even though design changes inflated those costs from the original goal of C\$28,000-C\$32,000.

The hike in capital costs stemmed partly from design changes that Cenovus said were aimed at improving reliability and efficiency, as well as incorporating some more stringent Alberta government regulatory standards.

When all eight phases are in full production, Foster Creek should have total production of 210,000 bpd, Cenovus said.

—GARY PARK

## • EXPLORATION & PRODUCTION

# Aurora expects busy 2015 at Nicolai

*A disappointing pair of wells in 2013 hasn't dimmed optimism; company is analyzing seismic for potential opportunities*

By ERIC LIDJI

For Petroleum News

After a pair of disappointing wells in 2013, and maintenance work in 2014, Aurora Gas LLC expects to renew efforts at Nicolai Creek next year, according to a company official.

The Alaska-based independent drilled the Nicolai Creek No. 13 and No. 14 wells in August and July 2013, respectively. Based on the success of previous wells, the company had expected those two wells to yield an average production bump of 3 million cubic feet per day, according to Aurora Gas President Ed Jones, but "neither of the development wells resulted in commercially viable accumulations of hydrocarbons and were plugged and abandoned," according to a plan of development for the year ending in October 2014.

While Aurora did not drill any wells or perform any rigged well work in 2014, the company recently completed several coiled tubing cleanouts and might perform more before the end of the year, according to Jones. "We are awaiting a review of seismic to confirm and prioritize these several drilling possibilities — we are expecting to have a more active year in 2015," Jones told Petroleum News by email in early September.

Among the possibilities is a Nicolai Creek No. 12 well, which the company had initially floated as a possibility for its current plan of development but ultimately deferred. The well would target deeper sands not accessible through Nicolai Creek No. 10 or No. 3.

### Longstanding commitment

Aurora acquired Nicolai Creek unit in 2000 through a trade with Marathon Oil Co., giving up a working interest at Kenai and Cannery Loop in return for operatorship.

"We essentially traded a modest quantity of proved developed producing reserves at Kenai and Cannery Loop for a larger quantity of proved undeveloped reserves at Nicolai Creek," Aurora Power President G. Scott Pfoff told Petroleum News in January 2000.

Between 1968 and 1977, Nicolai Creek produced fuel gas for offshore platforms. Later, a pipeline connected the field to the regional grid. But in the early 1990s a former operator killed the best producing well — Nicolai Creek Unit No. 3 — with drilling mud.

Aurora restarted production in late 2001, after cleaning out the well. In subsequent years, the company also restarted production from the Nicolai Creek No. 1B and No. 2 wells and drilled the Nicolai Creek No. 8 well, which is now known as Nicolai Creek No. 9.

After having to suspend production for parts of 2005, 2006 and 2007 because of commercial disputes involving marketing its product, Aurora brought the Nicolai Creek No. 11 well online in late 2009 and drilled the Nicolai Creek No. 10 well in 2011.

The results of those wells were what prompted optimism for No. 13 and No. 14. ●

Contact Eric Lidji  
at ericlidji@mac.com

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**ADDRESS**  
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Anchorage, AK 99523-1647

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circulation@petroleumnews.com

**ADVERTISING**  
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Bonnie Yonker • 425.483.9705  
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## CORRECTION

### Weight in pounds, not tons

The article titled "Platform arrives" in the Sept. 21 issue of Petroleum News incorrectly quotes Marc Van Dongen, port director for Port Mackenzie, as saying that one of Furie Operating Alaska's offshore platform structures weighs more than 2 million tons. Van Dongen actually said that the structure weighed more than 2 million pounds.

Petroleum News apologizes for the error.




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● EXPLORATION & PRODUCTION

# Alaska still has plenty of oil and gas

*USGS geologist overviews potential hydrocarbon resources that remain undiscovered and undeveloped in various parts of the state*

By **ALAN BAILEY**  
*Petroleum News*

With plentiful oil and gas resources but difficult development economics and controversial environmental issues, Alaska presents something of a challenge for oil and gas explorers. But the state and its offshore seas still hold huge potential volumes of undiscovered and undeveloped resources.

On Sept. 15, U.S. Geological Survey geologist Dave Houseknecht, an expert on Alaska petroleum geology, spoke to the Alaska-Japan LNG Opportunity Summit about the state's oil and gas potential.

### Arctic potential

Commenting that the preponderance of Alaska's hydrocarbon resources lie in the state's Arctic region, Houseknecht referenced a 2008 study that the USGS had carried out, estimating the volumes of oil and gas that may remain undiscovered across the whole of the Arctic. Based on analyses of the various geologic basins that lie around the Arctic region, the agency's scientists had concluded that northern Alaska presents the most promising Arctic region for oil exploration. Undiscovered natural gas in the Arctic, on the other hand, is likely concentrated in both the Russian and U.S. sectors of the region, Houseknecht said.

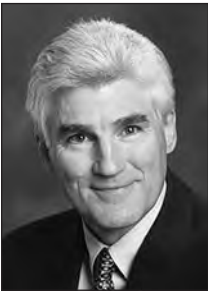
But much of the Alaska Arctic undiscovered oil resource lies offshore, a circumstance that has led to some impediments to Alaska exploration, especially on the outer continental shelf, Houseknecht commented. In addition, some regions, such as the Arctic National Wildlife Refuge, or ANWR, have high oil potential but are off limits to oil exploration, Houseknecht said.

### Stranded gas

And, while the discovery of the massive Prudhoe Bay oil field on Alaska's North Slope resulted in the construction of the trans-Alaska oil pipeline for carrying oil to market, the economic disparities between Arctic oil and gas have left the gas as a stranded resource. In the absence of a natural gas market, a major natural gas discovery on the North Slope is tantamount to a dry hole, Houseknecht said.

While cumulative oil production from the North Slope has now reached a level of around 16.5 billion barrels, gas production, used for local consumption on the Slope, has only amounted to about 7.6 trillion cubic feet — most of the gas produced along with the oil has been re-injected into the field reservoirs and remains part of the gas reserve base in northern Alaska, Houseknecht said.

The U.S. Geological Survey and the Bureau of Ocean Energy Management have estimated that there may be about 17 billion barrels of technically recoverable oil remaining undiscovered onshore in northern Alaska; about 15 billion barrels of undiscovered oil on the Chukchi shelf; and about 8 billion barrels of undiscovered oil on the Beaufort shelf. The corresponding figures for undiscovered natural gas are 99 trillion cubic feet onshore, 76



**DAVE HOUSEKNECHT**

trillion cubic feet on the Chukchi shelf and 27 trillion cubic feet on the Beaufort shelf.

### Cook Inlet

The Cook Inlet basin, in Southcentral Alaska, the state's other producing oil and gas province, has estimated undiscovered oil resources of 1 billion barrels in state lands and a further 1 billion barrels in the federal part of the basin, Houseknecht said. Estimated undiscovered gas resources amount to 14 trillion cubic feet, he said. To date the basin has produced about 1.4 billion barrels of oil and about 7.8 tcf of gas, with the gas production number reflecting the fact that Cook Inlet gas has enjoyed access to markets, Houseknecht said.

Although there are published estimates of undiscovered oil and gas for various parts of Alaska, commercial confidentiality issues make it difficult to obtain estimates for oil and gas reserves, the volumes of resource that have been proved to exist and that can be viably produced. It appears that the reserves vol-

umes for Alaska as a whole lie in the ranges of 3.4 billion to 5 billion barrels of oil and 28 tcf to 36 tcf of gas, with the preponderance of these reserves being in the northern part of the state, Houseknecht said.

### Other resources

Houseknecht said that, in addition to the continued production of oil from traditional field reservoirs, companies operating on the North Slope have been starting to develop relatively impermeable sand reservoirs using techniques associated with shale oil development in the Lower 48, such as horizontal drilling and massive "fracking" techniques.

USGS has assessed the possibility of developing shale oil in northern Alaska and has concluded that there may be 1 billion barrels of extractable oil of this type, with perhaps 40 tcf of shale gas. But, but because of difficult economics, development of these resources may come after the development of more con-

see **RESOURCE OVERVIEW** page 7

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2020H LPG	2,000 kg	4,000 lbs	LPG	GM 3.0L
2025H	2,500 kg	5,000 lbs	Diesel	Yanmar 4TNE92 2.7L
2025H LPG	2,500 kg	5,000 lbs	LPG	GM 3.0L

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Model	Capacity @ 500mm LC	Range @ 24" LC	Fuel T type	Engine
2030H	3,000 kg	6,000 lbs	Diesel	Yanmar 4TNE98 3.3L
2030H LPG	3,000 kg	6,000 lbs	LPG	GM 3.0L
2035H	3,500 kg	7,000 lbs	Diesel III	Yanmar 4TNE98 3.3L
2035H LPG	3,500 kg	7,000 lbs	LPG	GM 3.0L

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## GOVERNMENT

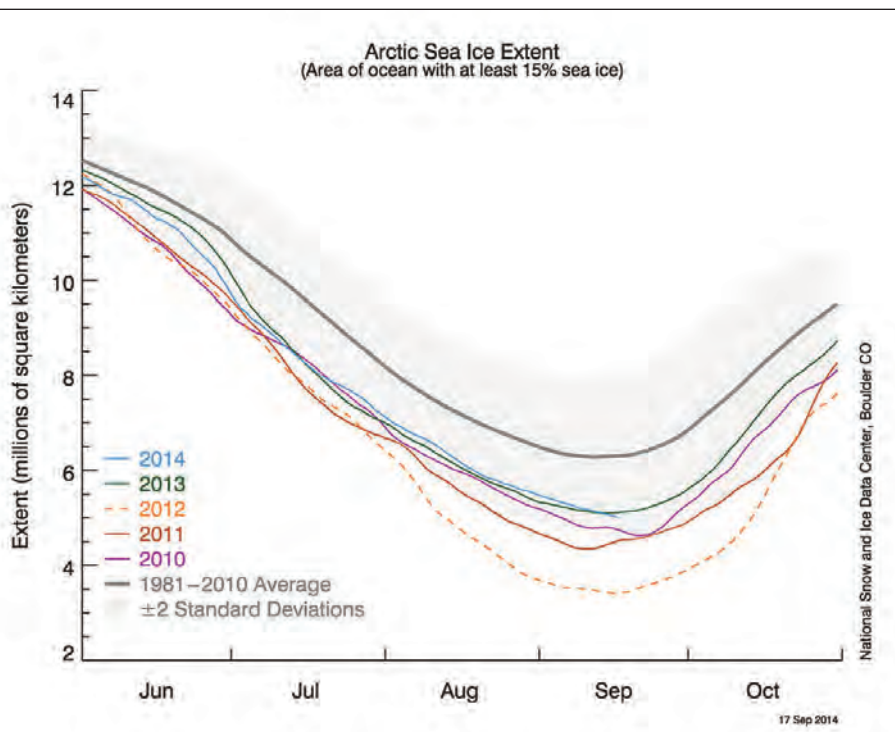
### US Senate passes BLM permitting bill

The U.S. Senate has passed a bill to permanently authorize funding for a program designed to provide resources for the Bureau of Land Management, to reduce the agency's backlog of permit applications and improve oil and gas permitting efficiency for federal lands administered by the bureau. The program had been established on a pilot basis in the Energy Policy Act of 2005 and was set to expire in 2015.

The new bill, which the Senate passed unanimously and now goes to the House of Representatives, makes permanent an arrangement whereby the Interior Secretary can designate BLM pilot offices in regions subject to especially high permitting demand. The bill provides for annual funding of about \$18 million to establish new permitting offices and hire additional staff.

"This legislation will provide BLM officials with much-needed resources and the flexibility to streamline the permitting process at a time when production from federal lands is trailing far behind the current boom from private and state lands," said Sen. Lisa Murkowski, R-Alaska. "This is critical for our energy and economic security, especially in Alaska where the vast majority of our untapped resources are on land managed by the federal government. This legislation will ensure that BLM has the staff and funding to complete the necessary environmental reviews in a timely and efficient fashion."

—ALAN BAILEY



This year's Arctic sea ice minimum (indicated in blue) falls below the long-term average extent but above the lowest ever minimum extent, set in 2012.

## • ENVIRONMENT & SAFETY

### Arctic sea ice reaches minimum for 2014

*Reaches the sixth lowest extent since satellite observations began in 1979; continues multi-year downward trend in sea-ice cover*

By **ALAN BAILEY**

*Petroleum News*

The extent of the Arctic sea ice cover has reached what is likely to prove its minimum extent for 2014, the National Snow and Ice Data Center, or NSIDC, has reported. On Sept. 17 the sea ice extent fell to an area of 1.94 million square miles, the sixth lowest extent since satellite observations of the polar icecap began in 1979, NSIDC said. The ice extent minimum was 622,000 square miles above the lowest ever recorded, the minimum of 1.32 million square miles observed on Sept. 16, 2012.

Although this year's minimum extent lies within two standard deviations of the 1981 to 2010 average minimum extent, this year's observations remain consistent with a long-term downward trend in the area of the ice cover, NSIDC said.

This year the ice cover over the Barents and Kara seas remained more extensive than it had been last year. On the other hand, this year there was a notable lack of ice north of the Laptev

Sea, with the ice melt extending to within 342 miles of the North Sea in that region, NSIDC said. And, unlike in recent years, the Northwest Passage around northern Canada has remained closed by ice; the Northern Sea Route around northern Russia has opened.

By contrast, the sea ice in the Antarctic, as it reaches its winter maximum extent for the year, has reached an extent that exceeds the previous maximum extent record, set in 2013, NSIDC said. In the past some scientists attributed the recently exceptionally large Antarctic winter maximum ice cover to strengthening circumpolar winds pushing ice away from the South Pole.

And, in evaluating the state of polar sea ice it is important to consider the thickness of the ice, as well as its surface extent. Recent years have seen a significant loss of stable, thick multi-year ice in the Arctic, with thin, less-stable young ice tending to become more prevalent. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

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continued from page 5

## RESOURCE OVERVIEW

ventional hydrocarbons, Houseknecht said.

There is also a massive North Slope resource in the form of perhaps 37 billion barrels of heavy oil, a form of natural bitumen. Two of the larger companies operating on the North Slope have been trying to find viable ways of developing this resource, but with mixed success, Houseknecht said. However, as technology evolves, and if oil prices remain high or increase, this challenging resource may enter the oil production profile for northern Alaska, he said.

Coalbed methane, natural gas that can be extracted from coal seams, is common in many parts of Alaska but is likely to be of value more as a rural energy source rather than as a driver for major gas production, Houseknecht said. Another potential source of gas, sometime out in the future, is gas hydrate, an ice-like material that exists onshore and offshore the North Slope.

### Arctic exploration opportunities

An assessment of the geology of northern Alaska suggests that oil and gas are likely to be found under a broad area of the Chukchi Sea shelf, in a zone along the northern North Slope and under the relatively nearshore waters of the Beaufort Sea. However, the deeper basins onshore to the north of the Brooks Range and further offshore under the Beaufort Sea are more likely to contain just gas.

And there is plenty of opportunity for exploration. The exploration well density in northern Alaska is just three wells per thousand square miles, Houseknecht said. That compares with a well density of 250 per thousand square miles in Wyoming, a state that would fit between Prudhoe Bay and the Burger prospect, a promising prospect in the Chukchi Sea, he said.

Almost all drilling activity in northern Alaska takes place in and around the area of existing oil development in the central North Slope. This focus of activity reflects the way in which the distance from any existing oil infrastructure has such a huge impact on the economics of oil development in northern Alaska, Houseknecht said.

### Cook Inlet is different

The petroleum geology of Cook Inlet is very different from that of the North Slope and is closely related to the fact that the petroleum basin underneath the inlet has formed as the Pacific plate, one of the massive plates that form the Earth's crust, slides under the Alaska continent. Oil and associated gas, both formed from the heating of hydrocarbon source rocks, are found in the deeper rock reservoirs of the basin, while shallower reservoirs host only natural gas, formed from the microbial decomposition of coal and other organic material.

Although current oil and gas fields are in state land in and around the upper Cook Inlet, the more northerly part of the inlet, there is also oil and gas potential on the federal outer continental shelf in the more southerly lower Cook Inlet. Renewed interest in the development of the Cosmopolitan oil and gas prospect, offshore the southern Kenai Peninsula, appears to bode well for interest in the lower Cook Inlet, where the Bureau of Ocean Energy Management will be holding a lease sale in a couple of years, Houseknecht said.

### Other basins

There are several other basins with

hydrocarbon potential in other parts of Alaska, including the Susitna basin that extends north from the Cook Inlet basin and the Nenana basin in the Alaska Interior. The Alaska Department of Natural Resources and USGS have been collaborating on researching the oil and gas potential of the Susitna basin. Doyon Ltd., the Native regional corporation for the Alaska Interior, has been exploring the Nenana basin and has reported positive indications from a couple of wells that it has drilled. Wells in the Kotzebue and Selawik basins in northwest Alaska suggest that these basins are gas prone, with potential gas resources to supply local communities.

But northern Alaska, offshore and onshore, with an estimated nearly 40 billion barrels of oil and more than 200 tcf of gas, remains in the Alaska driving seat as a world-class resource. There are few places on Earth where it is possible to find this scale of resource either on land or beneath water as shallow as that of the Chukchi and Beaufort seas, Houseknecht said. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

## INTERNATIONAL

### Exxon, Rosneft wind down Kara Sea drilling

As part of the fallout from sanctions against Russia over the Ukraine crisis, ExxonMobil and Rosneft are winding down the drilling of the Universitetskaya-1 exploration well in the Kara Sea in the Russian Arctic. The two companies started drilling the well in early August, as part of a new, joint Arctic exploration program. But, in response to Russian involvement in the Ukraine, the United States and the European Union have imposed a range of sanctions, including prohibitions on support for oil exploration in the Russian Arctic offshore.

In a Sept. 19 press release ExxonMobil said that the U.S. Treasury Department is allowing some extra time "to enable the safe and responsible winding down of operations related to this exploration well."

"All activities related to the wind down will proceed as safely and expeditiously as possible," the company said.

And according to a report in Reuters, Russian Deputy Energy Minister Kirill Molodtsov said on Sept. 23 that operations would continue at the well site until Oct. 10.

—ALAN BAILEY

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## PIPELINES & DOWNSTREAM

### KBPL applies to operate Kenai gas lines

Following an August settlement agreement to allow consolidated operation of four Cook Inlet natural gas pipelines (see story in Sept. 14 issue), the pipelines have applied to the Regulatory Commission of Alaska seeking authorization for consolidation of certificates.

Kenai Beluga Pipeline LLC, KBPL, a newly formed limited liability company owned indirectly by Hilcorp Alaska, will operate the lines, all of which — Beluga Pipeline Co., Kenai Kachemak Pipeline LLC, Cook Inlet Gas Gathering System and Kenai Nikiski Pipeline — are owned directly or indirectly by Hilcorp:

The current filing is to transfer certificates of public convenience and necessity, CPCN, Nos. 448, 711, 668 and 689 into a single CPCN for the four Cook Inlet natural gas pipelines.

The applicants have requested that KBPL operate under amended CPCN No. 668 and have requested temporary authority to allow KBPL to begin operation of the consolidated system by Nov. 1. The settlement agreement requests that KBPL operate the consolidated system under a single postage stamp rate of 29.12 cents per thousand cubic feet for shipments between any two points on the consolidated system. The parties reached that rate by spreading roughly \$17.5 million in annual costs of service over 2013 volumes of 60 billion cubic feet.

The commission said it had not assessed the application's completeness but may make that determination by Oct. 3.

*Kenai Beluga Pipeline LLC, KBPL, a newly formed limited liability company owned indirectly by Hilcorp Alaska, will operate the lines ...*

—KRISTEN NELSON

## • LAND & LEASING

# AOGCC approves rules for new gas pool

*Requires Hilcorp to escrow funds for uncommitted tracts in Ninilchik unit; removes well spacing restrictions except at boundaries*

By KRISTEN NELSON

Petroleum News

The Alaska Oil and Gas Conservation Commission has issued pool rules for the Beluga/Tyonek gas pool in the Ninilchik unit on the Kenai Peninsula.

It has also removed well spacing restrictions, except at the unit boundary and boundaries of uncommitted tracts not in participating areas and is requiring Hilcorp to escrow monies for gas produced from uncommitted tracts with production allocations.

Hilcorp Alaska, the operator at Ninilchik and 100 percent working interest owner, applied in June to have a new

*The commission is also requiring "evidence that an escrow account was established for every uncommitted tract."*

gas pool (see map) defined within the Ninilchik unit, and asking that it be allowed to develop gas within the unit without spacing exceptions unless a proposed well was within 1,500 feet of a boundary where ownership changed.

The commission held a public hearing in July on Hilcorp's Ninilchik application at the request of the Alaska Division of Oil and Gas and the legal representative for a private landowner. Division geologist Julie Houle told the commission at the hearing that the division requested the hearing because of "diverse mineral ownership of the Ninilchik unit and the surrounding acreage to the east of the unit." Houle said a complex reservoir combined with the complex ownership made Ninilchik, "one of the more complex units in Alaska."

Complex ownership isn't the only issue — some of the tracts aren't committed to the unit.

The commission said in conservation order No. 701, issued Sept. 18: "Due to the presence of uncommitted tracts within the bounds of the NU, the correlative rights of the landowners of the uncommitted tracts are potentially in jeopardy." Protection of correlative rights — the rights of adjacent landowners — is one of the commission's responsibilities.

### Escrow required

The commission said the Department of Natural Resources assigns tract allocation values to uncommitted tracts within defined participating areas. There are three participating areas in the Ninilchik unit: Falls Creek in the north, Grassim Oskolkoff in the middle of the unit and Susan Dionne Paxton in the south.

"The correlative rights of the landowners of those uncommitted tracts can be protected by establishing escrow accounts to hold revenue attributable to each uncommitted tract until such time as the tract can be committed to unit or some other agreement can be reached between the operator and the landowner," the commission said in its order.

It required escrowing of revenue for uncommitted tracts within participating areas.

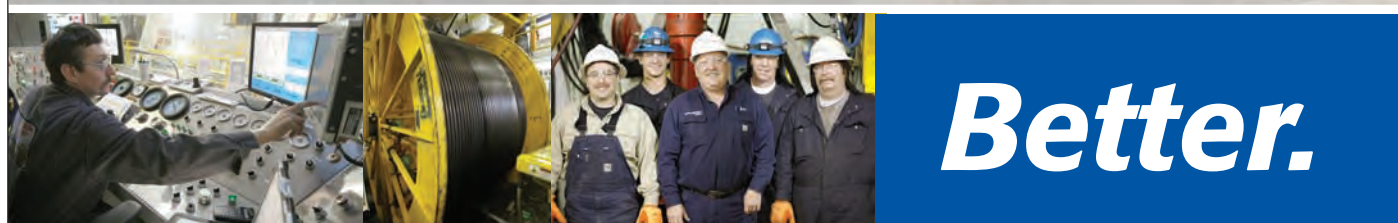
"The operator shall establish and maintain an interest-bearing escrow account for each uncommitted tract that has production allocated to it. The amount of funds to be deposited into the account each month is the total value of the production allocated to the tract."

At the July hearing Hilcorp said the Ninilchik unit includes some 25,819 acres, 9 percent of which is federal, 77.5 percent state, 2.56 University of Alaska, 5.88 Cook Inlet Region Inc. and 13.12 patented fee lands. The company did not break out how much acreage was not committed to the unit, but the commission is requiring Hilcorp to provide a



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continued from page 9

GAS POOL

complete list of uncommitted tracts, including the landowner name and a legal description.

“If a tract is within an established Participating Area, the operator shall also indicate which Participating Area the tract lies within, what the tract-allocation value is for that tract, and how that tract-allocation value was created.”

The commission is also requiring “evidence that an escrow account was established for every uncommitted tract.”

Pool definition

The commission defined the Ninilchik Beluga/Tyonek Gas Pool as gas-bearing intervals common to the interval between the measured depths of 1,489 feet in the Paxton No. 5 well and 9,600 feet in the Paxton No. 1 well. The two wells are necessary to define the pool due to lack of well logs over a portion of the pool within the Paxton No. 1 well, the commission said.

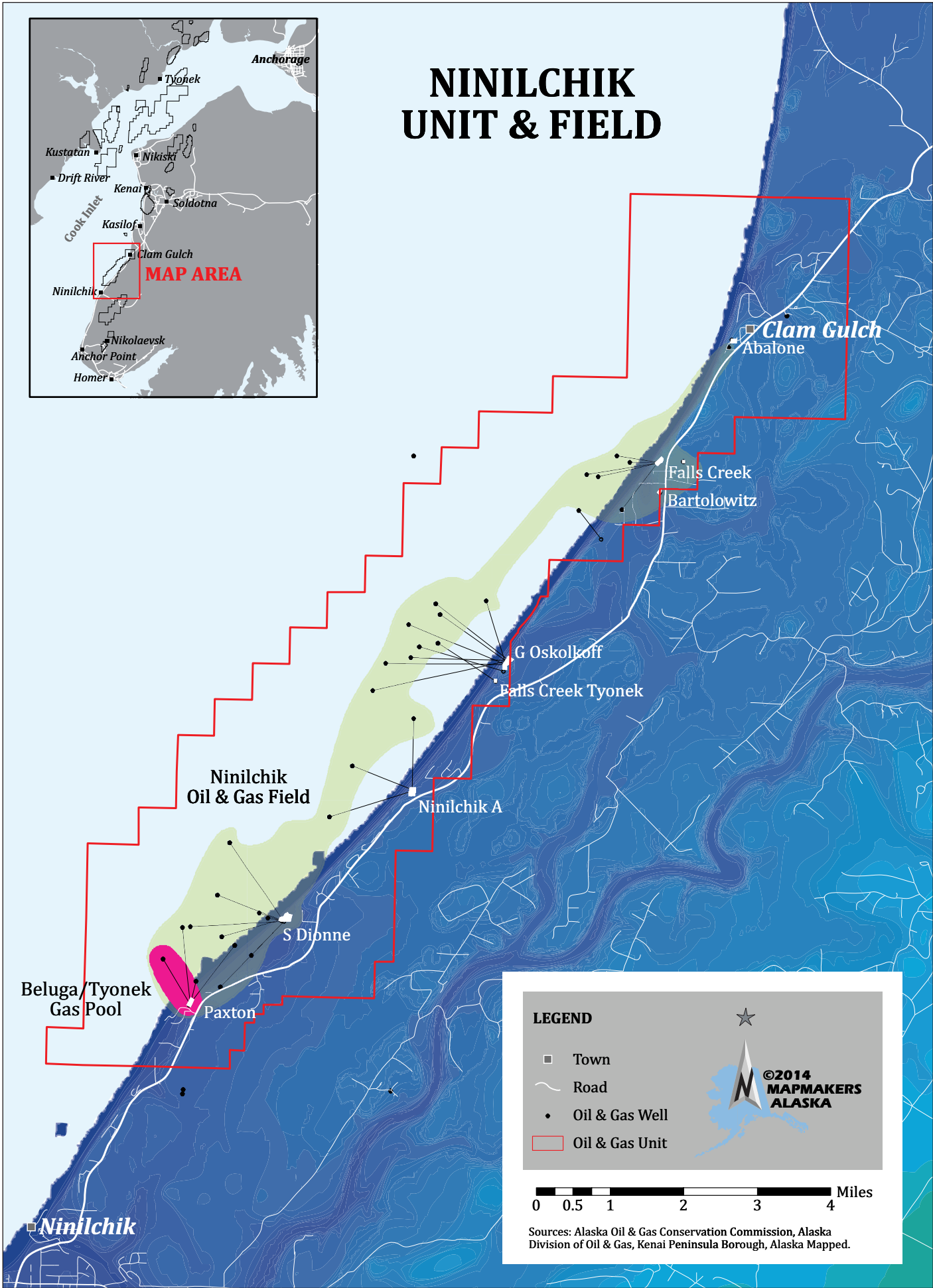
Within the Ninilchik development area, “the northeast-trending Ninilchik Anticline measures about 16 miles long and 4 miles wide and is bounded on the west by a high-angle reverse fault. Natural gas has accumulated in three separate areas along the crest of this anticline. These areas are named, from southwest to northeast, Paxton-Dionne, Grassim Oskolkoff, and Falls Creek-Bartolowits, and are separated from one another by structural saddles or faults,” the commission said.

Well spacing

The commission said there would be no gas well spacing restrictions within the Ninilchik unit, except that no gas well shall be drilled or completed less than 1,500 feet from the exterior boundary of the area “unless the owner and landowner is the same on both sides of the line.”

The commission also restricted drilling close to uncommitted tracts: “No gas well shall be drilled or completed less than 1,500 feet from an uncommitted tract within the Ninilchik Unit unless the well and the uncommitted tract both lie within the same Participating Area.” ●

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## • ALTERNATIVE ENERGY

# ORPC, Igiugig say turbine successful

*In-river test system generated electrical power for village over summer; next step is commercial design based on lessons learned*

By ALAN BAILEY

Petroleum News

Ocean Renewable Power Co. says that the prototype in-river "RivGen" power generation device that it installed in the Kvichak River over the summer has proved successful. The installation was designed to test the in-river system as a potential power source for the village of Igiugig near the end of Lake Iliamna in southwest Alaska.

"We are thrilled with the successful demonstration of the self-deployment and power generation features of our system and the lessons learned will be invaluable to us as we complete our commercial design of RivGen next year," said ORPC President and CEO Chris Sauer in a Sept. 24 press release. "We are indebted to our Alaska-based project team, the Village of Igiugig, and the local contractors whose professionalism, ingenuity and perseverance really paid off."

And the village residents also seem happy with the results of the test.

"With incredible teamwork and ingenuity, ORPC and Igiugig Village generated hydrokinetic power from the Kvichak River," said AlexAnna Salmon, Igiugig village president. "The (village) council is impressed that the RivGen System was installed with local equipment, provided significant power for our micro-grid and, most importantly, coexisted with the fish habitat that the Kvichak River is so famous for. We are very thankful to



Ocean Renewable Power Co.'s RivGen being deployed in the Kvichak River during the summer. The device was sunk to the bottom of the river, enabling its helical shaped turbine to generate electricity for the village of Igiugig.

everyone that has made this journey a success."

## Submerged turbine

ORPC's in-current technology uses a submerged turbine with helical shaped blades to employ flowing river water to generate electricity. The device deployed at Igiugig was a scaled-down version of a system that the company has installed offshore Maine to generate power from tidal currents. The type of system tested at Igiugig might provide a practical source of power for rural villages that are suffering from the high cost of diesel gen-

erated electricity and that are located next to rivers. And there may be applications for the technology in other remote regions of the world, ORPC thinks.

The cost of diesel-generated electricity in Igiugig is almost 80 cents per kilowatt hour, nearly eight times the average cost in the United States, ORPC said.

ORPC installed its prototype RivGen device in the Kvichak River for a couple of months this summer to test the effectiveness of the system as a power source and to test the practicalities of installing the system in the river. The company has previously said that, if the test proved

successful, it hopes to make a more permanent installation of a similar device in 2015. The concept is to place the device in the river in early June of each year and then remove the device again in mid-April, before ice starts flowing out of Lake Iliamna during the spring breakup.

## Self-deployment

Highlights of this summer's project included several deployments and retrievals of the device using its self-balasting system, thus proving the viability of the system's self-deployment and retrieval features. ORPC said its engineers were able to operate and adjust the system remotely; the device delivered the projected amount of power to its onshore station; and comprehensive monitoring of the device demonstrated no negative impacts on fish and other aquatic life.

ORPC has been working with Homer Electric Association to investigate the use of a similar system to generate power from tidal currents in Cook Inlet. The company is also interested in implementing a tidal power system in False Pass, off the western end of the Alaska Peninsula.

The Denali Commission and the Alaska Energy Authority provided funding support for the Igiugig project, while the U.S. Department of Energy and the University of Alaska also assisted the project. ●

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## • ENVIRONMENT &amp; SAFETY

# Tests show no leakage from fracking

NETL project demonstrates that hydraulic fracturing of a well does not result in upwards contamination by gas or other fluids

By ALAN BAILEY

Petroleum News

In the interest of establishing some objective data in response to a continuing debate over potential contamination of groundwater and other subsurface resources from the hydraulic fracturing of oil and gas wells, the National Energy Technology Laboratory, or NETL, has conducted a project to test for fluid contamination following the “fracking” of wells in the gas producing Marcellus shale in Pennsylvania. The project found no evidence of the upwards migration of gas or brine from the Marcellus shale as a result of the fracking of six horizontal wells in the shale, NETL has reported.

The objectives of the research project were to determine the maximum height of the fractures created by the hydraulic fracturing of the wells, and to determine if natural gas or brine had migrated 3,800 feet upwards into an overlying gas field during or after fracturing, NETL said.

Small-scale seismic monitoring of the fracturing operations indicated that some fractures had propagated through a limestone layer about 280 feet above the Marcellus — that layer had been thought

to be a barrier to upward fracture growth. Nevertheless, the shallowest fracture penetrations appeared to be at least 2,000 feet below the overlying gas field and more than 5,000 feet below drinking water aquifers, NETL reported.

## Chemical monitoring

The NETL research team tested for fluid and gas migration before, during and after the well fracking operations by monitoring the gas field above the test wells, with monitoring continuing for two months following the fracking. The team monitored the field’s gas pressure; the gas production history; the produced gas isotopic and chemical composition; and the possible presence of chemical markers that had been incorporated into the hydraulic fluid used to fracture the Marcellus wells.

Any breakthrough of fluids from the Marcellus into the overlying gas field would have caused some measurable gas pressure change in the field. And, with the gas and water in the Marcellus shale having distinctly different isotopic contents from those of the fluids in the overlying

see **FRACKING TESTS** page 15

## UTILITIES

### AIDEA, MWH sign concession agreement

The Alaska Industrial Development and Export Authority signed a concession agreement with MWH Sept. 19, creating the legal framework under which AIDEA will own and MWH subsidiary Northern Lights Energy LLC will build, operate and maintain a liquefied natural gas plant on the North Slope.

The AIDEA board passed resolutions Aug. 25 to move the LNG project forward, one authorizing AIDEA to spend \$1.6 million, in addition to an existing commitment of \$4.5 million, for early procurement of long lead-time items needed for the plant and the other resolution approving an agreement for construction and operation of the plant by Northern Lights Energy.

These efforts are in support of the Interior Energy Project, a plan to construct a 6 billion cubic-feet-per-year capacity liquefaction plant on the North Slope. The LNG would be trucked to a storage and regasification facility in Fairbanks.

The Interior Gas Utility, owned by the Fairbanks North Star Borough, hired MWH Americas in January to help manage the project to bring natural gas to residents. IGU was certified by the Regulatory Commission of Alaska in December, and is working to deliver gas to residents and businesses in the borough at \$15 per thousand cubic feet or cheaper by 2020.

The Legislature authorized funding and bonding by AIDEA and MWH is working with the agency as a private-sector partner.

Pad and access road construction for the LNG facility on the North Slope have been completed.

### AIDEA to own plant

AIDEA said in a statement that under terms of its concession agreement with MWH, AIDEA will own the plant, which will be operated by MWH subsidiary Northern Lights Energy, which will also have the right to sell LNG produced by the plant.

Under the agreement AIDEA and Northern Lights “will move forward with development of the plant and a structure for financing the project using a mixture of AIDEA and private funds,” AIDEA said. “The signing also provides Northern Lights the authority to move forward with negotiating gas purchase agreements with the Interior utilities.”

The Interior Energy Project was introduced by Gov. Sean Parnell in the 2013 legislative session and with the passage of Senate Bill 23 a financing package was authorized, enabling AIDEA and the private sector to partner in the construction of an LNG facility on the North Slope and a natural gas distribution system in Fairbanks.

—KRISTEN NELSON

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Alaska Rubber & Rigging Supply opens new location

Alaska Rubber & Rigging Supply is proud to announce the opening of its newest location in Kenai. Located at 43640 Kenai Spur Highway, the 6,000-square-foot warehouse is in the heart of Kenai’s oilfield support community. Kevin Calhoun, a long-time Alaska Rubber employee, has been promoted to branch manager and will head operations in Kenai. This fourth location cements Alaska Rubber’s position as Alaska’s largest supplier of hose, fittings, and rigging accessories. To reach the Kenai store call 907-395-0575.



Vigor Alaska signs notice of intent to build ferries

Alaska Gov. Sean Parnell announced the selection of Vigor Alaska to build the state’s two newest day ferries. The two ferries, owned and operated by Alaska Marine Highway System, will be built by Alaskans for Alaska to serve citizens along the Lynn Canal route between Juneau, Haines and Skagway.

Construction of both vessels is scheduled to begin in October 2014 and will take approximately four years to complete. The design and estimating process was a true collaboration between Vigor Alaska, the Alaska Department of Transportation, the Alaska Marine Highway System and Elliot Bay Design Group.

The two day ferries will cost \$101 million to construct, which is a reduction in the original price. Because of the importance of keeping Alaska dollars in the state, Vigor Alaska made significant cuts to the initial estimates for the project and, in fact, delivered a price that was below the independent government price estimate.

“This project represents far more than a contract,” said Adam Beck, president of Vigor Alaska. “It is a dramatic step forward in realizing the shared goal of the people of Alaska, its elected officials and the shipyard to keep taxpayer dollars in the state and support family-wage jobs. The Vigor Alaska team represents the best shipbuilders in the state with the expertise to build complex vessels and the dedication to do it to the highest quality standards.”

Paul Gallagher returns to Foss Maritime

Foss Maritime announced that Paul Gallagher will be rejoining the Foss team to work in the commercial services group on major transportation project opportunities.

Gallagher brings more than 25 years of experience within the maritime industry, and

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Companies involved in Alaska  
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# JOULE Q&A

response. There have been several people who live up there, people like Rep. Ben Nageak in Barrow, who say that needs to be a priority, even ahead of Shell and ConocoPhillips developing, because any oil spill could come from outside the U.S. What are your thoughts on that?

Joule: That's true. We need to have some capability from the shore. There are a lot of questions that need to be answered. What all that means and who is going to provide it and pay for it, how much of it will be under the Coast Guard purview, do we have what the Coast Guard may need in a given geographic area; do they have resources at the closest point to where they may need to deploy; are there going to be search and rescue responses for any given situations that we don't have; where is the technology taking us? The indications are based on currents that happen in a major or not so major way, the impact will likely be felt on Alaska's coastline. In addition to those involved with outer continental shelf activities, and the need to have their response for what our regulations will require of them to be prepared, will there be an opportunity to use them as a Good Samaritan in case something happens in other international waters? So there really is a lot to take in there.

*Petroleum News: So do you believe that resource development on the Arctic waters can work, coexist with the lives and livelihoods with the people who live up there?*

Joule: Well, let's look at the 40-year history at Prudhoe Bay. I think that question has been answered over the last 40 years. The question about Red Dog over the last 30 years. The question is about balance and how that is going to work in the marine world is something yet to be determined. Yet you have the marine mammal coalition and the potential of them working with the Coast Guard and developing water way safety committees, choosing the models from the continental United States that can have some application here.

I think some of that, as it is, we have to answer those questions on the U.S. side when we have the environmental impact studies, and are asking the questions about what's the research needed to get answers to those questions, but also what are the levels of adaptations that need to occur, educationally or otherwise? How do we deal for ramping up for potential health-care services, public safety, schools if there is going to be growth? What are going to be the stress points of that? The larger question is can we bring some of those opportunities to shore, but also what is the

level of communication? Do we have an understanding of the kind of cargo? How are we doing to know what's there and what's passing through our waters?

*Petroleum News: Those are certainly a lot of questions, even as some of the history bodes well for what may be ahead. Are you getting answers to some of those questions?*

Joule: To some extent, I think we are. There has been research going on with the North Slope Borough through their wildlife division for quite a number of years where baseline data is done, where indigenous people have worked hand-in-hand with scientists in developing those kinds of questions, for instance understanding the population of whales, the movement and the habits and other things in the marine world. Some of those questions are being answered and some of that kind of research has been conducted in the Bering Straits area.

For many of us, the questions we are asking is what will be the impact to our renewable resources, as the changes occur and as these things unfold. I would say yes that some of the questions are being asked and answered. I think there are still many more questions. As we answer some, it probably brings up new questions. The Northwest Arctic Borough has been engaged in a subsistence mapping program funded in part by the federal government, by Shell, by ConocoPhillips and NGOs. We are in the last year of putting that together for seven of our 11 communities.

We are looking to find additional funding to do the same kind of thing for the remaining four communities. We used that to initiate with Shell a \$1.2 million grant to begin a research arm of this borough. We are looking for a director/coordinator for that effort. That's all been within the last year. Research and science are huge industries unto themselves. Having a seat at that table is very important and we've been working our way toward that. So to answer your question, yes some of those questions

have been asked and answered, and there are many still out there.

We need to figure out where the gaps are, how do we approach it and how to we build partnerships with the North Slope Borough and with the Bering Straits so that it's complete along the coastline and there is a level of collaboration between the different jurisdictions. In that regard, I think we've been involved in some really neat things that will have a long lasting impact. Part of the question then becomes when we run out of grant money, how are we going to pay for it all? When you get a good baseline, you get a good snapshot of what happens at a given point, but how often does that data need to be updated so that it's current and is not information that is outdated, therefore relevant?

*Petroleum News: Let's talk about the Alaska Arctic Policy Commission. What kind of value has come from the commission?*

Joule: the Arctic Policy Commission is doing necessary work. It's bringing a diverse group of people to look at our state from multi dimensions, different interest groups, the Legislature, the administration, NGOs, industry and indigenous people. The work is necessary especially now that the federal government is developing an Arctic policy and Arctic strategy coming. How that works with what we are doing is very relevant. The indigenous people of the Arctic, whether we are talking about tribes, corporations, Native people in general terms, whether were are talking cultural adaptation, they are all important and I'll bring up one of them: subsistence. How do we deal with that moving forward? We operate on two different levels, the federal level and then there is state level, and sometimes those are not in alignment.

Raising those questions of subsistence and the absence of coastal zone management, and whether or not we need to take a look at that as a state, because that has opportunities with the federal government

if we choose. There are economic opportunities I think we can't ignore, some of which we will be in favor of, some of which we may be in opposition to, but having those dialogues with the different industries is important because we will look at what's in it for us. We've an energy state for 40 years and there are some things that are still lacking here. We have some of the highest costs of living in the Arctic, in this borough in particular. The cost of energy is very high. Other than a place like Red Dog, there's not a lot of opportunity to have an economy for all of the people in the communities. So how do we prepare our people for all of this?

*Petroleum News: The U.S. takes over as Arctic Council chair. What would you like to see happen in those next few years, either with Alaska having a role or otherwise?*

Joule: I think that's yet to be determined. It's going to take some coordination and communication. The areas of the state that really are the Arctic part of Alaska are sitting down with each other and paying attention to that.

What I find lacking now in this endeavor, although I think that gap will be closed, is the communication that needs to take place between the United States and the different publics, if you will, in Alaska. The state and the feds are certainly talking. There is more discussion taking place with Admiral (Robert) Papp as the new representative from the State Department and Fran (Ulmer) as the advisor from the science end of things. To me, one of the things that's missing in that is the inclusions of indigenous people. There is not an indigenous person who is part of that team. I think that needs to change. Other countries seem to be able to tap into and recognize contributions of indigenous people at those high levels. We have those caliber of people in our state. ●

Contact Steve Quinn  
at squinnwrite@gmail.com

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## FINANCE &amp; ECONOMY

# Oil near low for year despite turmoil

Demand down globally against 'plentiful supply'; analyst says low price will create demand, also force some oil off the market

By JONATHAN FAHEY

Associated Press Energy Writer

The oil market has lost its jitters. Some regions around the world are seeing the type of unrest that in the past sent oil prices soaring. Yet oil is down about \$15 since mid-summer and near its low for the year.

Even with escalating violence in Iraq, OPEC's second largest exporter, and multiple rounds of sanctions by Western nations against Russia, the biggest exporter outside

of OPEC, oil keeps on flowing. The major exporting nations continue to ship their crude, and production in the U.S. and Canada continues to grow.

At the same time, demand from China and Europe isn't growing as much as expected, leaving more oil on the market than predicted.

"Demand has really dropped off globally, and continues to be revised downward," says Judith Dworkin, chief energy economist at ITG Investment Research. "And there's plentiful supply."

Oil rose slightly Sept. 23 to close at \$91.56. Before this week, the last time oil was at these levels was January. For the year, oil has averaged \$99.80 per barrel. The price did reach \$107.26 in June at the peak of concerns over the insurgency in Iraq, but it soon retreated when it became clear Iraq's huge southern oil fields weren't threatened.

## Seasonal lull

Some of the decline is likely due to a seasonal lull in demand. Driving slows dramatically throughout much of the Northern Hemisphere as summer wanes. If there are no hurricanes or other disruptions to oil supplies, prices typically fall and languish into the winter.

But the global economy is a factor as well. The International Energy Agency, which represents oil-importing nations, said earlier this month that crude demand has slowed at a "remarkable" pace because of economic slowdowns in Europe and China.

As a result, the agency has reduced its forecast for growth of global demand by 100,000 barrels per day for both this year and next year. Global demand is now expected to grow by 900,000 barrels per day to 92.6 million barrels per day this year, then rise by 1.2 million barrels per day next year.

## US production up

Just the rise in U.S. production is

enough to meet that demand growth. The U.S. Energy Department estimates the U.S. is on track to grow crude production by 1.1 million barrels per day this year and another 1 million barrels per day next year.

Oswald Clint, an oil analyst at Bernstein Research, does not expect oil prices to fall further, however, or even remain at these lower levels for long. He predicts that demand will rise in response to the lower prices.

He also expects some supply to come off the market. Oil producers might cut back output at some of their more expensive fields, while OPEC countries could cut production in hopes of keeping oil prices high.

Earlier in September the secretary general of the Organization of Petroleum Exporting Countries, which supplies 40 percent of the world's crude, said it may need to lower production targets for next year.

Clint notes that the price of global oil for delivery in future months is higher than oil priced for delivery in October, suggesting that prices are indeed set to rise.

Brent crude, a key international benchmark, closed at \$96.85 in London. The contract for August 2015 finished at \$100.06.

"The long-term trajectory is upward," he wrote, and the oil price pullback is "a buying opportunity within a dramatically under-valued energy space." ●

## EXPLORATION & PRODUCTION

### US drilling rig count unchanged at 1,931

Oilfield services company Baker Hughes Inc. says the number of rigs drilling for oil and natural gas in the U.S. was unchanged the week ending Sept. 19, holding at 1,931.

The Houston firm said in its weekly report that 1,601 rigs were drilling for oil and 329 for gas. One was listed as miscellaneous. A year ago there were 1,761 active rigs.

Of the major oil- and gas-producing states, North Dakota gained four rigs, Oklahoma increased by two and California, Colorado and New Mexico each gained one.

Texas declined by five rigs, West Virginia dropped three and Louisiana was down two.

Alaska, Arkansas, Kansas, Ohio, Pennsylvania, Utah and Wyoming all were unchanged.

The U.S. rig count peaked at 4,530 in 1981 and bottomed at 488 in 1999.

—ASSOCIATED PRESS

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## OIL PATCH BITS

during his career he has been involved in all aspects of maritime operations and cargo transportation.

He began at Foss in 1991 and served in a variety of roles including director of sales for marine transportation, PNW regional operations manager and director of oilfield services. Gallagher managed business development and service delivery in support of project logistics for heavy lift cargo transportation for upstream oil and gas projects.


During the past few years, he has been the director of project services at TOTE Logistics and has worked collaboratively with Carlile, Totem Ocean Trailer Express, Delta Western, Northern Air Cargo and Foss Maritime on a wide variety of projects in Alaska, Canada and the Lower 48 states.

"The addition of Paul to the commercial services group, coupled with our extensive resources in project management, helps round out the Maritime Solutions campaign we inaugurated in 2010," said Gary Faber, senior vice president.

*Editor's note: All of these news items — some in expanded form — will appear in the next Arctic Oil & Gas Directory, a full color magazine that serves as a marketing tool for Petroleum News' contracted advertisers. The next edition will be released in March.*



PAUL GALLAGHER



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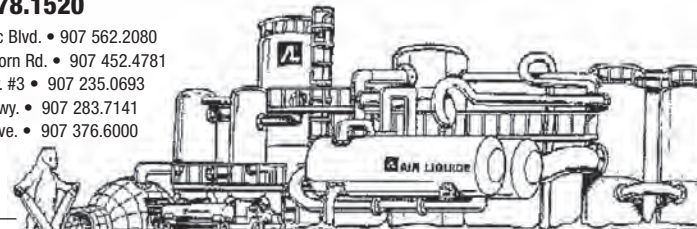
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## ARCTEC MEMBERSHIP

The formation of ARCTEC followed the failure of the Alaska Legislature to enact the formation of a company to maintain and operate power generation and transmission in the grid. Anchorage utility Municipal Light & Power was the one utility not to join ARCTEC.

When Homer Electric subsequently resigned from ARCTEC in 2013, Homer Electric's board of directors informed ARCTEC by letter that it was leaving the organization because it needed to be able to focus its efforts on what it called its "independent light" program, a major program of facility upgrades, including the implementation of new gas-fired power generation capabilities. Because of upcoming changes in power generation on the grid, Homer Electric had to be able to generate its own power by the beginning of 2014, rather than purchase most of its power, primarily from Chugach Electric Association, as it had done in the past.

### Response to question

Janorschke's letter to Isaacson emanated from an energy roundtable meeting that the Legislature had convened on Sept. 5, to discuss the various issues facing the Railbelt grid. At that meeting Rep. Craig Johnson had asked why Homer Electric had withdrawn from ARCTEC. Janorschke's letter has responded to that question.

"After two years of existence ARCTEC had yet to either begin or act as a catalyst for a project, implement joint planning efforts, or attempt any collective effort towards securing fuel," Janorschke wrote. "Instead it seemed as though the sole purpose for the organization was to lobby the legislature for grant funds to benefit its individual members and sustain it as an

organization."

Janorschke is presumably referring to ARCTEC's requests to the Legislature in recent years for funding assistance for upgrades to the Railbelt's aging transmission grid.

Joe Griffith, ARCTEC CEO, told Petroleum News Sept. 23 that, while concerns about the cost of hiring of a CEO may well have motivated Homer Electric to leave the organization, Janorschke's accusations that ARCTEC had become purely a lobbying organization were essentially "balderdash."

"Are we doing things? You bet we are," Griffith said.

Griffith explained that, with major decisions over future power generation in the grid having been made prior to ARCTEC moving into operation, the organization has been focusing on the transmission aspects of the grid, trying to redefine the power load balancing areas of the main utilities and to put together an organization to manage the transmission network. The organization has received briefings from potential creators of an appropriate transmission management company — the utilities that are members of ARCTEC own substantial amounts of the transmission network, Griffith said. And ARCTEC put much effort into supporting the development of Railbelt grid operating and reliability criteria, an exercise that had not been accomplished prior to ARCTEC's involvement, he said.

Griffith also commented that ARCTEC had obtained \$56 million of the \$92 million in state funding that it had requested for transmission upgrades, and that Homer Electric had received \$18 million of that funding.

—ALAN BAILEY

Contact Alan Bailey  
at abailey@petroleumnews.com

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## FRACKING TESTS

field, any movement of Marcellus fluids into the field would have been detectable. Similarly, should some fluid breakthrough have occurred, chemical tracers injected into the Marcellus should have appeared in the gas field during the monitoring exercise following the well fracking operations.

The research concluded that the impact of hydraulic fracturing in the Marcellus did not extend upwards into the gas field and that there had been no migration of gas or aqueous fluids from the Marcellus into the field during the two-month monitoring period, following the fracking of the Marcellus wells. ●

Contact Alan Bailey  
at abailey@petroleumnews.com

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## LNG VENTURES

Canadian energy resources to markets beyond the United States.

Under existing rules, LNG export facilities are listed as distribution businesses that qualify for less favorable tax treatment.

The alliance's four members are Chevron-operated Kitimat LNG, Pacific NorthWest LNG operated by Malaysia's Petronas, Shell Canada's LNG Canada venture and Prince Rupert LNG led by the United Kingdom's BG Group.

### Expanded training

Separately, the British Columbia government's Industry Training Authority said it plans to expand training opportunities in the province's north and in aboriginal communities where the largest LNG proposals are concentrated to turn out about 20,000 skilled workers to build up

to five LNG operations.

Marvin Odum, president of Shell Oil, has said British Columbia's ability to provide a skilled workforce ranks second among his company's priority issues.

Jobs Minister Shirley Bond said the agency's plan provides a "clear" approach to meeting her government's commitment to align trade with the needs of the LNG sector.

The trades in greatest need are listed as welders, steamfitters and pipefitters, carpenters and heavy equipment operators.

Lance Mortlock, a partner with the accounting and consulting firm of Ernst & Young, said the province should not overlook the "greatest labor supply demand" for new gas-drilling crews and gas-field service workers, noting that Alberta and Saskatchewan are recruiting at a feverish pace in those sectors to turn the tide on a rapidly aging labor pool. ●

Contact Gary Park through  
publisher@petroleumnews.com

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## INSIDER

continue to be eligible for bonuses.

In changing roles, Boruff said in a Sept. 15 press release that he intended to "remain active in Miller's strategic activity and help grow the value of my family's substantial investment in the company."

Along with Boruff's move, company founder Deloy Miller retired as board chairman. He was the stepfather of Boruff's late wife, an SEC filing said.

Under a separation agreement, the company said it would pay Deloy Miller a lump sum cash payment of \$500,000 on or before Oct. 1. The company said it also intends to work out a consulting contract with Miller.

Miller is a Tennessee-based, publicly traded company that operates in Alaska via its Anchorage-based subsidiary, Cook Inlet

Energy LLC. Miller shares trade on the New York Stock Exchange.

The company recently reported average net production of just over 3,300 barrels of oil equivalent per day. Nearly all this production comes from Cook Inlet properties including the offshore Redoubt unit, the West McArthur River oil field and the North Fork natural gas field.

Miller has pursued an aggressive program of well workovers, new drilling and acquisitions. The company has borrowed extensively to pursue its agenda.

For now, the company is losing significant money.

For the three-month period ended July 31, Miller reported total revenue of \$25.4 million and an operating loss of \$9.6 million.

—WESLEY LOY

Contact Wesley Loy  
at wloy@petroleumnews.com



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## CHUKCHI SALE

January 2014 decision by the U.S. Court of Appeals for the 9th Circuit upholding an appeal against the validity of the document. The 9th Circuit judges ruled that, when the U.S. Minerals Management Service, BOEM's precursor organization, prepared the EIS it had arbitrarily, without explanation, assumed that potential oil development in the Chukchi Sea would only amount to a single oil field, with an estimated 1 billion barrels of economically recoverable oil.

BOEM has to incorporate a better reasoned estimate of the scale of potential Chukchi Sea oil and gas development, taking into account the potential oil spill risk ramifications if the estimates of recoverable oil increase.

### Critical timing

The timing with which BOEM issues a new SEIS and lease sale decision is particularly critical for Shell, the company spearheading efforts to explore in the Chukchi Sea. Shell purchased its Chukchi Sea oil and gas leases in the lease sale that is the subject of the District Court appeal — lease related activities, including the approval by BOEM of Shell's Chukchi Sea exploration plan, are banned until BOEM has completed the SEIS revision and issued a new decision affirming the

lease sale.

Shell hopes to continue its Chukchi Sea exploration drilling program in the summer of 2015, presumably starting in July, after sea ice has retreated from the region. But, to achieve that target, the company must presumably start activating its drilling fleet several months earlier, an operation involving significant work effort and cost.

In its status report to the District Court BOEM said that it has now refined its estimates of Chukchi Sea exploration and development scenarios and has incorporated input from various government agencies that are working with BOEM on the SEIS. BOEM said that it has received an analysis of oil spill risks associated with the scenarios it has developed and has completed computer runs that predict the trajectories of oil slicks resulting from oil spills. That analysis has led to calculation of the probabilities of oil spills impacting specific coastline segments and resource areas.

BOEM analysts have started using the oil spill assessment to analyze the potential environmental impacts of oil spills and gas releases that might result from activities anticipated in the exploration and development scenarios, the status report says. ●

Contact Alan Bailey  
at [abailey@petroleumnews.com](mailto:abailey@petroleumnews.com)

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## HILCORP MOVES

submit an application to “consolidate and expand the current unit boundary to include all operations from each platform.” It described the proposal as being “substantially similar” to one the Alaska Department of Natural Resources approved for the Hilcorp-operated Trading Bay unit in August 2013.

That summer, the state added two leases to the Trading Bay unit to allow Hilcorp to access a “newly discovered natural gas deposit” from the Monopod platform. Trading Bay is an oil field. The expansion reduced facility duplication, according to Hilcorp.

### Declining Kasilof production

On the other side of Cook Inlet, Hilcorp is signaling that it might suspend or at the very least scale back its activities at the Kasilof unit and redirect those facilities elsewhere.

Given the declining production and lack of foreseeable opportunities for development at Kasilof, Hilcorp told the state that it might use the Kasilof facilities to assist another asset, probably the nearby Ninilchik unit. “Existing facilities may be downsized to accommodate the reduced production capacity of the (Kasilof participating area) while benefiting the production of Hilcorp's other

*Last year, Hilcorp suspended production at the Kasilof unit from April through October 2013 because of “the seasonal lack of market demand for gas” in the summer in Southcentral. The unit produced 2,299 thousand cubic feet per day from the lone well at the start of the year but was producing only 1,609 mcf per day by the end of the year.*

assets that are currently not producing.”

Following up on exploration work dating to the late 1960s, Marathon Oil Co. brought the offshore Kasilof unit into production in November 2006, using the 17,000-foot extended reach dual-lateral KAS-1 well drilled from an onshore pad. When its initial drilling campaign proved that the Kasilof producing area was smaller than expected, Marathon requested a major contraction at the unit, to 329 acres down from 13,289 acres.

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This year, Hilcorp “anticipates limited production of KAS-1” because “no new drilling programs are justified, and current opportunities to enhance production are limited.”

### Consolidation trend

The proposals highlight a unique aspect of Hilcorp's operations in Cook Inlet.

When Hilcorp acquired the Cook Inlet assets of Unocal in 2011 and Marathon in 2012, the company became the dominant oil and natural gas producer in the Cook Inlet basin.

Subsequent discussions focused on the renewed interest Hilcorp brought to aging assets and on the benefits and risks of having a single dominant producer in the market.

But the consolidation efforts at Trading Bay, Granite Point and Kasilof suggest that Hilcorp is also interested in finding efficiencies that its predecessors were either unable or unwilling to pursue. The largest of those is the current program to consolidate four interconnected Cook Inlet pipelines into a unified system with a postage stamp rate. ●

Contact Eric Lidji  
at [erichidji@mac.com](mailto:erichidji@mac.com)



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